

## Remarks

Claims 5-8 are now pending in this application. Applicants have presented claims 5-8 and cancelled claims 1-4 to clarify the claimed invention. Applicants respectfully request favorable reconsideration of this application.

Applicants submit herewith on a separate sheet an abstract of the disclosure.

With respect to the objection to claim 4, all pending claims include definition of all parameters. Accordingly, Applicants respectfully request withdrawal of the claim objection.

The Examiner rejected claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent 6,313,614 to Persson. The Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Persson. The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Persson in view of U.S. patent 4,434,388 to Carver.

Persson does not disclose the invention recited in independent claim 5 since, among other things, Persson does not disclose controlling a tap changer based in an impedance of a line. Rather, as described at col. 2, line 63, through col. 3, line 6, and col. 4, lines 42-44, Persson discloses controlling a tap changer based on a voltage  $u^*$  and a frequency at a secondary side of a transformer.

Persson also does not disclose a feed forward term. Rather, Persson discloses a feedback

term. It is well known that a feedback term takes a value on the output or load side of a controlled entity. On the other hand, a feed forward term is based on measurements appearing on the input side of the controlled entity. The controlled entity according to the claimed invention is a transformer. On the contrary, Persson discloses utilizing the secondary, or load, side of the transformer. Therefore, it is clear that the voltage and frequency used are, in fact, feedback terms.

Furthermore, the claimed invention operates in case of dynamic instabilities. Along these lines, the claimed invention is thus directed towards temporarily changing the behaviour of an on-line tap changer when the line impedance changes such that the system is driven into a critical operation regime. The claimed invention is therefore directed towards being employed when there are dynamic instabilities. On the other hand, Persson discloses continuous operation, as described at col. 3, lines 5-6.

In view of the above, Persson does not disclose all elements of the invention recited in claims 5-7. Since Persson does not disclose all elements of the invention recited in claims 5-7, the invention recited in claims 5-7 is not properly rejected under 35 U.S.C. § 102(b). For an anticipation rejection under 35 U.S.C. § 102(b) no difference may exist between the claimed invention and the reference disclosure. *See Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q. 841 (C.A.F.C. 1984).

Along these lines, anticipation requires the disclosure, in a cited reference, of each and every recitation, as set forth in the claims. *See Hodosh v. Block Drug Co.*, 229 U.S.P.Q. 182 (Fed. Cir.

1986); *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986); and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986).

Persson does not suggest the invention recited in claim 7, which depends from claim 5, since, among other things, Persson does not suggest controlling a tap changer based in an impedance of a line, a feed forward term, or operation in case of dynamic instabilities, as described above. Therefore, Persson does not suggest the invention recited in claim 7.

The combination of Persson and Carver does not suggest the invention recited in claim 8 since, among other things, the combination does not suggest controlling a tap changer based in an impedance of a line, a feed forward term, or operation in case of dynamic instabilities, as described above. The Examiner cites Carver as suggesting a feedback controller, which does not suggest any of the elements of the claimed invention not suggested by Persson. Therefore, the combination of Persson and Carver does not suggest the invention recited in claim 8.

In view of the above, the references relied upon in the office action do not disclose or suggest patentable features of the claimed invention. Therefore, the references relied upon in the office action do not anticipate the claimed invention or make the claimed invention obvious. Accordingly, Applicants submit that the claimed invention is patentable over the cited references.

In conclusion, Applicants respectfully request favorable reconsideration of this

application and issuance of the notice of allowance.

If an interview would advance the prosecution of this application, Applicants respectfully urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

Date: December 22, 2009

/Eric J. Franklin/  
Eric J. Franklin, Reg. No. 37,134  
Attorney for Applicants  
Venable LLP  
575 Seventh Street, NW  
Washington, DC 20004  
Telephone: 202-344-4936  
Facsimile: 202-344-8300